

Shiqing Gao

Mathematics Undergraduate

Hong Kong

TODO: add email

TODO: add personal website

TODO: add GitHub profile

TODO: add LinkedIn profile

EDUCATION

The Chinese University of Hong Kong

Sophomore · GPA: 3.4/4.0

B.Sc. in Mathematics

RESEARCH INTERESTS

Applied Mathematics

Computational Imaging

Inverse Problems

Statistical Modeling

Data Science

Scientific Computing

Machine Learning

PROJECTS

Image Inverse Problems / Denoising MVP

- Built a small experimental pipeline for image denoising.
- Compared noisy images and Gaussian-filtered outputs.
- Evaluated performance using PSNR and SSIM.
- Conducted noise sensitivity and filter sigma sensitivity analysis.

Tools: Python, NumPy, scikit-image, pandas, matplotlib

TODO: link to GitHub repo

Mathematical Modeling Competition Practice

- Practiced problem formulation, assumption design, model construction, and result interpretation.
- Focused on translating open-ended problems into quantitative models.

Tools: Python, LaTeX, mathematical modeling

TODO: add competition/report details

Statistical Data Analysis Mini Project

- Performed descriptive statistics, visualization, and interpretation on structured datasets.
- Practiced statistical reasoning and communication.

Tools: Python, pandas, matplotlib, statistics

TODO: replace with a concrete dataset/project later

TECHNICAL SKILLS

Programming: Python, C++, TypeScript basics

Data / Scientific Computing: NumPy, pandas, matplotlib, scikit-image

Web: Astro, HTML, CSS, GitHub Pages or Vercel

Writing / Tools: LaTeX, Markdown, Git

COURSEWORK

Calculus

Linear Algebra

Probability

Statistics

Vector Calculus

Mathematical Modeling

TODO: add more exact course names later

AWARDS / ACTIVITIES

- TODO: Add mathematical modeling competitions, student clubs, or academic activities later.